

Patent Claims:

1. A drive unit, preferably an actuator comprising a DC motor having a rotor consisting of a plurality of coils connected to a commutator in connection with a set of brushes to establish a voltage across the coils, said DC motor, via a transmission, driving an adjustment means for adjusting an adjustable element in a structure in which the drive unit is incorporated, said drive unit being supplied with power from a power supply comprising a transformer having a primary side for connection to a mains voltage (alternating current) and a secondary side with rectification and smoothing for connection to the DC motor, characterized in that it comprises a first control to compensate for the loss in the motor, thereby keeping the speed thereof constant for a long period of time, as well as a second control adapted to remove the ripple in the voltage, thereby keeping the speed of the motor constant for a short period of time.

2. A drive unit according to claim 1, characterized in that the second control is performed by the following two steps, viz.

a forward step in which the duty cycle may be expressed by k and V_{in} , and

a power step in which V_{out} may be expressed by V_{in} and the duty cycle,

wherein the result of the forward step and the power step is $V_{out} = k$,

and wherein V_{in} is the input voltage from the rectification, V_{out} is the output voltage from the power step, k is a constant given by the actual circuits for the forward step and the power step, and wherein the duty cycle is the proportional time for which the power supply may be loaded during a given period of time.

3. A power supply according to claim 2, characterized in that the forward step is given by: duty cycle = k/V_{in} , and the power step by: $V_{out} = V_{in} \cdot \text{duty cycle}$.

5 4. A power supply according to claim 2, characterized in that the forward step is given by: duty cycle = V_{in}/k , and the power step by: $V_{out} = V_{in}/\text{duty cycle}$.

10 5. A control unit for drive units, including actuators comprising a DC motor which, via a transmission, drives an adjustment means for adjusting an adjustable element in a structure in which the drive unit is incorporated, said drive unit being supplied with power from a power supply comprising a transformer having a primary side for connection to a mains voltage and a secondary side with rectification and smoothing for connection to the DC
15 motor, characterized in that the control unit comprises a first control to compensate for the loss in the motor, thereby keeping the speed thereof constant for a long period of time, as well as a second control adapted to remove the ripple in the voltage, thereby keeping the speed of the motor constant for a short period of time.

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2 6. A structure, in particular an article of furniture having at least an element which may be adjusted with at least a DC motor, preferably via a mechanical transmission, said DC motor being connected to a power supply comprising a transformer having a primary side for connection to a mains voltage and a secondary side with rectification and smoothing for connection to
25 the DC motor, characterized in that the secondary side of the power supply is additionally provided with a first control to compensate for the loss in the motor, thereby keeping the speed thereof constant for a long period of time, as well as with a second control adapted to remove the
30 ripple in the voltage, thereby keeping the speed of the motor constant for a short period of time.